Early pandemic forecast for Saudi Arabia M: multi-output M: multi-output M: repeated single-output (deaths) (deaths + mobility) (deaths) 2.0 2.0 2.0 per million of population Prediction Prediction Prediction Truth Truth Truth Death incidence 1.5 1.5 1.5 1.0 1.0 1.0 0.5 0.5 0.5 0.0 0.0 10 12 0 10 12 12 10 Days since April 22 2020 Days since April 22 2020 Days since April 22 2020 B: LSTM (deaths) B: Bi-LSTM (deaths) B: GRU (deaths + mobility) 2.0 2.0 2.0 per million of population Prediction Prediction Prediction Truth Truth Truth Death incidence 1.5 1.5 1.5 1.0 1.0 1.0 0.5 0.5 0.5 0.0 12 12 10 8 10 12 8 8 6 10 Days since April 22 2020 Days since April 22 2020 Days since April 22 2020 B: ARIMA wavelet **B**: Persistence 2.0 2.0 per million of population Prediction Prediction Truth Truth Death incidence 1.5 1.5 1.0 1.0 0.5 0.5 0.0 0.0 10 12 $\dot{0}$ 10 12 2 0

Days since April 22 2020

Days since April 22 2020